

FRESHWATER TIDAL MARSH RESTORATION

The Fisher Slough restoration project is producing a wide range of **benefits for fish**, **wildlife**, **farmers and residents** of the greater Skagit Delta—the heart of Western Washington's agricultural community. This collaborative effort was the first of its kind on private land within the Skagit Delta. The restored Fisher Slough is a significant contribution to local and regional salmon recovery goals and is referenced in the Skagit Chinook Recovery Plan, which calls for the restoration of several thousand acres of estuarine habitat. In addition to restoring habitat for threatened salmon species, the project improved flood protection for the surrounding agricultural community, showing how farms and fish habitat can coexist on the landscape. **Farmers and other partners have already reported the following benefits:**

- · Increased flood storage and reduced flood risk
- · Updated drainage and irrigation infrastructure with a decrease in operation and maintenance costs
- Strengthened relationships through a new collaborative method of working together, instead of against one another, to problem-solve and achieve multiple benefits







THE FISHER SLOUGH PROJECT RESTORED ESTUARY HABITAT FOR CHINOOK SALMON, INCREASED HOW MUCH FLOODWATER THE SITE CAN STORE, AND UPDATED FLOOD AND DRAINAGE INFRASTRUCTURE FOR AGRICULTURE.

Tidal marsh habitat provides a quiet place for out-migrating juvenile salmon to eat and grow so they can better avoid predators in Puget Sound. The additional fish habitat at Fisher Slough was predicted to produce just over 16,000 juvenile Chinook per year. The data we have collected through 2013 tells us that the site is producing an additional 22,000 juvenile Chinook per year.

A study assessing the economic value of the project's long-term benefits found that the \$8 million project will return \$9-21 million in benefits in the next 50 years. **Long-term benefits include** reduced risk of structural failure, road damage and lost farming opportunities caused by flooding, as well as lower maintenance and operation costs.

In addition, there are human and social capital gains from the project that are more difficult to put a dollar value on. **Individuals across a spectrum of groups**—including conservation organizations, engineering and construction companies, tribes, and drainage and diking districts—**now have the experience to tackle complex problems and find win-win solutions**. Thanks to Fisher Slough, long-standing social barriers and conflicts have been overcome, leading to greatly improved relationships and future collaborations.

OBJECTIVE	BASELINE	RESTORED	TARGET
Freshwater marsh restored	10 acres	56 acres**	60 acres
Stream miles improved for adult fish passage	n/a	15 miles	15 miles
New Juvenile Chinook salmon production increased	n/a	22,000+ smolts*	16,000 smolts
Flood storage capacity increased	64 acre-feet	309 acre-feet**	310 acre-feet
Floodgates open (% time) for juvenile Chinook	< 40%	>90%	≥ 90%

- * based on two years of post restoration data
- ** final configuration of the infrastructure decreased the marsh footprint slightly

PARTNERS & FUNDERS

- · Dike District 3
- Drainage and Irrigation District 17
- Environmental Protection Agency
- National Fish & Wildlife Foundation
- National Oceanic and Atmospheric Administration
- Private donors

- Skagit County
- Washington Department of Fish and Wildlife/Estuary and Salmon Restoration Program
- Washington State Recreation and Conservation Office/Salmon Recovery Funding Board
- Western Washington Agricultural Association









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